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Review Article

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Evaluating the Effectiveness of Resilience and Coping Psychosocial Intervention Delivered to Families Experiencing Covid-19 Related Psychosocial Stress in Kampala city

Peter Baguma*

Makerere University, Wilber Karugahe, Makerere University, Mayanja Kajumba,

***Corresponding Author**
Peter Baguma, Makerere University, Wilber Karugahe, Makerere University, Mayanja Kajumba,

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Abstract

Covid-19 related psychosocial stress, both in Uganda and internationally, is known to be a major public health burden at many levels including the family [1]. This study explores the effectiveness of the Family Resilience and Coping Intervention (fRCI) in Kampala city in Uganda.

The study employed a two-group randomized, matched subjects, pre-test post-test control group design, investigator-blind, with a baseline, midline and end line spells that lasted for 3 months. Randomization was by family unit, using a 1: 1 allocation. The experimental group received the fRCI and the control group did not. There were 81 participants in the control and 92 in the intervention group. Instruments included a questionnaire that assessed demographic; coping, strengths and difficulties, depression, generalized anxiety, hope, and general family functioning. Evaluation of fRCI, and session feedback was assessed using forms. Data was analyzed using factor analysis, t-test, panel regression and thematic analysis. Across the baseline, mid and end line, results showed that the fRCI was effective in reducing family psychosocial stress. Significant predictors of family psychosocial stress included age, education and coping strategy. The youths, parents and counselors positively evaluated the fRCI and its sessions. It was recommended that the Ministry of Health and the Ministry of Disaster Preparedness adopt the fRCI. Teachers and community leaders and health and disaster workers be trained in implementing the fRCI so that they can help individuals and communities impacted by pandemics like Covid-19.

Introduction

COVID-19 related psychosocial stress, both in Uganda and internationally, is known to be a major public health burden at many levels including the family [1]. The Family Resilience and Coping Intervention (fRCI) has helped in the western world but in Uganda it has not been utilized. This implies that the mental health of families in Uganda is serious affected. This study explores the possibility of adopting the fRCI in Uganda.

Stress happens when there is an imbalance between resources and demands of the situation [2, 3]. A stressor leads to stress and stress leads to outcomes. Coping involves persons' efforts to manage stress, whether the process of dealing with stress is adaptive or not [2]. Effective coping leads to resilience. Resilience is a dynamic process characterized by positive outcomes despite adversity or stress [4]. Families have experienced emotional and psychological distress following Covid-19 virus.

COVID-19 related stress has come from the physical effects of the disease as well from the implementation of COVID-19 health prevention interventions (Ministry of Health in Uganda (April, 2020). The burden of covid-19 is not yet established through research but police reports indicate increased domestic violence, interpersonal conflicts between family members, boredom and hunger, increased use of alcohol, tobacco, or use of other drugs [5]. Corona virus (COVID-19) deaths worldwide stand at 6,866,733 and 3,632 in Uganda [7].

CDC (2019) and Gordon (2020) highlights on the ways to cope with stress to include: Take breaks from watching, reading, or listening to news stories, including social media, eating healthy, and exercising regularly. Parents should support their children by reassuring them and taking care of them. Ike Herdiana, Suryanto & Seger Handoyo (2017) found out that the family's efforts and success to rise from crisis situations are known as family resilience. Coping and resilience should be taught to families. However, in

Uganda there are no management programs aimed at the family level to reduce these psychosocial problems. One way to deal with family stress is to develop and implement Resilience and Coping Interventions (RCIs).

The efficacy of RCI has been rated high [7]. RCI is a group coping exercise that has been found to be appropriate for children, adolescents, adults, and families. RCI encourages family members to share their thoughts and feelings about their experiences and to identify appropriate and successful coping strategies. It engages group members in dialogue about issues that are difficult to discuss and it is skill-enhancing. RCI sessions can focus on disasters, community trauma, or other challenges like Covid-19 [7-9]. Based on this evidence the RCI has been rolled out to the communities in the developed and not in the developing world.

Despite the high Covid-19 psychosocial stress at the family level, there no planned psychosocial interventions to manage it. Little is known about the benefits of fRCI in Africa and Uganda in particular. Without evidence based interventions, families will continue to experience stress leading to poor family mental health and might even cause death of family members.

It was hypothesized that participants assigned to the fRCI condition would report better family outcomes compared with the control group; that participants (families and counselors) in experimental arm would report positive views and observations on the fRCI and that the facilitators/counselors/providers will report positive views and observations on the fRCI to maximizing impact.

Methodology

Design

The study employed a randomized, matched subjects, pre-test post-test control group design. Randomization was by family unit, using a 1: 1 allocation. The study was carried out in Kawempe division in Kampala city. Kawempe was chosen using the rotary method from the five divisions of Kampala. Mulago and Kyebando parishes from this division were chosen randomly to participate in the study.

Participants

These were families identified and recruited by local council leaders working together with the research team. In Mulago 40families (20 in the experimental and 20 in the control group) were selected for the study using random sampling. The same procedures were used to select 30 families in the control and 30 families in the experimental group in Kyebando parish at baseline. At the end line, 13 families comprised loss to follow up. In total 173 people participated in the study (81 participants in the control and 92 in the intervention group). See Table 1 for details of the sample structure.

Intervention

This was the fRCI conducted for 3 months, family-based community programme with parents and youth, being taught and helped in addressing resilience and coping issues among families in dealing with COVID-19 related stress. A step-by-step instruction for facilitating RCI with a family was followed. This was done using a RCI family discussion grid and went through a number of steps as follows: step 1: preparing for the RCI session, step 2: beginning the RCI session, step 3: identify the problem, step 4: describe the problem and what changed, step 5: explore thoughts and feelings, step 6: identify problems now, step 7: brainstorm options to change and step 8: considering consequences and 9: action planning regarding Covid-19.

Instruments and variables measured

Demographic variables were assessed using the demographic questionnaire. The Coping Checklist with 17 items was used to assess coping ways [7]. It had 17 items asking participants about specified things they had done to solve their problem (Cronbach alpha = 0.87).

The strengths and difficulties measure is used to assess mental health problems focusing on behavioral and emotional problems [10]. A Higher score implied lower strengths and higher difficulties. Its Cronbach alpha was 0.82.

The Hope Questionnaire with a Cronbach alpha of 0.60 had eight items, with higher scores indicating more hopeful feelings [11].

Depression was assessed using the Patient Health Questionnaire (PHQ 9) with 9 items [12]. A high score meant high depression, Cronbach alpha was 0.75. Anxiety was assessed using the Generalized Anxiety Disorder scale (GAD 7) created by Spitzer, Kroenke & Williams, et al (2006). It had an alpha of0.79. A high score meant high anxiety

Participant evaluation of fRCI: This was done using 19 items (Allen, 2014) with an alpha of 0.95. A high score meant more positive feedback. Item 17 asked about the best aspects of fRCI, item 18 asked about possible improvements and item 19 asked for any other comment.

General family functioning was assessed using a scale based on [13]. It had an alpha of 0.87 with 12 items

The "What I Learned" questionnaire (Allen, 2014) with alpha of 0.92 was used to assess feedback about fRCI and used 11 positive/ negative statements to ask participants about the RCI exercise and what they had learned from participating. Higher scores indicated more positive feedback. Feedback about the sessions was assessed using the session report form that had 14 items.

Procedure

The field work commenced after national and ethical clearance was obtained. Families were recruited into experimental and control groups. Both active and passive recruitment methods were used. Recruitment took 2 weeks. The control group was recruited in the same way as experimental but received no intervention, but was assessed in the same way like the experimental group. There was randomization and 1.1 allocation concealment.

Researchers registered families after confirming eligibility and obtaining consent, and after completing the baseline data collection in order to ensure allocation concealment. The PI would assign the participants to the groups they are allocated to.

Each family in the control and intervention was met one in a month and a session lasted on average one hour. Each intervention team had two counselors -the discussion leader who led the discussions and the note taker. The team was chosen from staff of the School of Psychology or masters of clinical or counseling students. The team received training for two days. The research team did two days of pilot. The intervention group received the fRCI while the control group families received newspapers to read. Each family in the study was visited 3 times, once in each spell (baseline, midline in the second month and end line in the third month). Care was taken to make sure that the two groups were similar and did not mix during the study. The groups had fairly same socioeconomic status, schooling and same locality. None of participants broke down.

The session had three parts, the pre-intervention, intervention phase and post-intervention phase. In the pre-intervention phase the team leader introduced the session and did preliminary documentation including obtaining consent. Once consented the session would be conducted. In the third phase, the session would be evaluated where participants and intervention team asked about the session, what worked well, and what was problematic.

A parent or guardian provided demographic information and completed pre- and post-assessments of children's strengths and difficulties. Pre- and post-intervention, the youths and parents completed assessments of their coping, strengths and difficulties, family functioning, depression, anxiety and hope. Following the final session, youth and parents completed an evaluation of the experience. Parents' verbal comments about their family experiences were documented by the discussion leaders.

The data was entered into Google forms and later analyzed using SPSS. Preliminary data analysis and t-test were used to analyze the data and panel regression was used to identify the predictors. Qualitative data was analyzed thematically and percentages were used.

Participation in the study was voluntary and a consent form bearing assurance regarding risk or discomfort, likely benefits, rights, obligations, confidentiality of data and anonymity of participants was signed by each participant. In case of children, consent from caregivers and assent from children were obtained. All participants were given a unique identifier. Only the investigators and study had access to the database.

Findings

Demographic Characteristics of The Sample

Presentation of results starts with demographic characteristics of the sample. This helps to understand the nature of the sample that was used in the study (See Table 1).

Variable	N	Control(N=81)	Intervention(N=92)
Location			
Kyebando	111	51(46)	60(54)
Mulago	61	30(49)	31(51)
Participant			
Youth	58	26 (45)	32 (55)
Parents	115	55 (48)	60 (52)
Gender of the Youth			
Boy	11	5(45)	6(55)
Girl	47	21(45)	26(55)
Gender of the Parent			
Male	27	10(37)	17(63)
Female	88	45 (51)	43(49)
Age Category for the Youth			
10-17 Years	20	12(60)	8(40)
18-24 Years	24	8(33)	16(67)
25-34 Years	14	6(43)	8(57)
Age Category for the Parents			
18-24 Years	5	2(40)	3(60)
25-34 Years	28	15(54)	13(46)
35-44 years	35	20(57)	15(43)

45-54 years	26	11(42)	15(58)
55+	20	7(35)	13(65)
Grade (Level of Education)			
None/Primary	31	21(30)	10(31)
O-level	38	26(37)	12(38)
A-level	8	8(11)	0
University/Tertiary	26	16(23)	10(31)
Ethnicity			
Bantu	129	69(53)	60(47)
Nilotics	32	9(28)	23(72)
Nilo-Hamites	10	3(30)	7(70)

Table 1: Demographic Characteristics by study group (Percentage in Parenthesis)

Regarding location, Table 1 shows two locations where that Kyebando parish control group had 46% and intervention group had 54% of the participants, whereas Mulago had 49% in the control group and 51% in the intervention group. The youth formed 45% and 55% in the control and intervention group, respectively and parents were 48% and 52% in the control and intervention group, respectively. Forty-five percent of the boys were in the control group and 55% in the intervention group. The same percentages were for girls in the two groups. Among parents, 37% in the control group and 63% in the intervention group were males. Fifty-one percent in the control and 49% in the intervention group were females.

The age for the youth ranged from 10 to 34 years. The majority in the control group was in the 10-17 age category (60%) and for the intervention group majority was in the 18-24 age range (67%). The age range for parents was 18 to 55+ and in the control group the majority was from the 33-44 years (57%) and in the intervention group the majority was aged from 35 to 54 years. In the control and intervention groups the majority had completed O-level (37% for each group). In all groups majority of the participants described themselves as Bantu in terms of ethnicity (53%) for control and 47% for the intervention group.

Coping Analysis

Exploratory and confirmatory factor analysis was done using varimax rotation to come up with the number of factors using the principal components method of extraction. The cut off point for factor loadings was set at 0.40, and the cut off point for Eigenvalues was set at 1.00 and the scree plot was used to confirm the factors extracted.

Factor Analysis

The factor analysis came up with six factors accounting for most of the total variability in data for the coping check list. The remaining factors account for a very small proportion of the variability and are likely to be unimportant (see Table 2).

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	6.039	3.621	0.355	0.355
Factor2	2.418	0.811	0.142	0.497
Factor3	1.607	0.062	0.095	0.592
Factor4	1.545	0.378	0.091	0.683
Factor5	1.167	0.126	0.069	0.752
Factor6	1.041	0.345	0.061	0.813

Table 2: Factor analysis for coping checklist (Intervention group)

Table 2 shows that the 6 factors accounted for 81.3 percent of the variance. Table 3 shows the factor loadings.

Variable	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6	Uniqueness
Item 1	0.2606	**0.8161**	0.2026	0.0123	0.2757	0.0752	0.1432
Item 2	0.0266	**0.5410**	**0.4524**	0.0355	**0.5277**	-0.1710	0.1929
Item 3	0.0572	0.3205	0.2104	0.1070	**0.7652**	0.2040	0.2112
Item 4	0.2211	**0.8219**	0.1573	0.0598	-0.0465	0.1293	0.2284
Item 5	**0.7387**	**0.4834**	-0.0652	-0.2495	0.1104	-0.0370	0.1406
Item 6	0.0512	**0.4491**	-0.0686	0.2061	-0.0880	**0.7600**	0.1632
Item 7	0.3072	**0.5684**	0.3882	0.2264	0.0426	0.1473	0.3571
Item 8	**0.4543**	-0.0640	-0.1606	**0.6173**	0.3405	-0.1491	0.2444
Item 9	0.0935	0.0678	0.0541	**0.9353**	0.0239	0.1412	0.0885
Item 10	0.1431	0.2456	**0.7841**	0.1944	0.2957	-0.1378	0.1602
Item 11	0.0030	-0.1075	0.2855	-0.0382	**0.6900**	0.2114	0.3847
Item 12	0.0480	-0.0675	0.0942	-0.0400	0.2339	**0.8985**	0.1206
Item 13	**0.5113**	0.0838	0.3741	**0.5418**	-0.2948	-0.1597	0.1856
Item 14	**0.7757**	0.2531	0.0533	0.3012	0.2260	0.0870	0.1820
Item 15	**0.7663**	0.3658	0.0589	0.3413	0.0020	-0.0714	0.1539
Item 16	**0.8250**	-0.0469	**0.4156**	0.1025	-0.1228	0.2056	0.0766
Item 17	0.1359	0.1612	**0.8629**	-0.0874	0.1441	0.1778	0.1509

Table 3: Factor loadings (pattern matrix) and unique variances for baseline data

Table 3 shows factor ladings and uniqueness. Uniqueness is the variance that is 'unique' to the variable and not shared with other variablesin the overall factor model (Oscar Torres-Reyna, 2023). The greater 'uniqueness' the lower the relevance of the variable in the factor model. Table 3 shows that the uniqueness was low for the variables. The factors were named as follows: **Factor 1**: Bolstering hope, Factor 2: Thinking about problem solution, Factor 3: Expressing feelings with others, Factor 4: Problem avoidance, Factor 5: Exercising and making things better, and Factor 6: Cognitive avoidance.

Outcome Analysis

Testing Hypothesis One: It was hypothesized that participants assigned to the fRCI condition would report decreased covid-19 psychosocial distress compared to the control group. Data on four outcome variables of strengths and difficulties, depression, generalized anxiety, hope and family functioning was analyzed to assess the effectiveness of the intervention in reducing distress.

Parental Ratings of Strengths and Difficulties and Depression

1. Strengths and difficulties

The mean values for parental ratings of strengths and difficulties of the youths were computed. For the control group, the means were 4.8, 3.4 and 3.3 for the baseline, midline and end line, respectively whereas for intervention group the means were 4.9, 2.4 and 2.5 for baseline, midline end line, respectively (See Table 4).

The independent t-test to compare the mean score of parents' assessment of youth strengths and difficulties for control and intervention group at different study spells was computed. Results showed that that except for the baseline scores, families in the intervention group had a significant reduction in scores of strengths and difficulties (better strengths and fewer difficulties) when compared with families in the control arm of the study. Both the intervention arm and the control arm had a significant reduction in strengths and difficulties for midline (t= 2,212, p = 0.0293) and end line scores (t =1.348, p = 01811) at $p<0.2$.

Means for strengths and difficulties		
Spell	Parent strengths and difficulties average score	
	Control	**Intervention**
Baseline	4.8	4.9
Midterm	3.4	**2.4**
End line	**3.3**	**2.5**
Depression means across groups and spells		
Spell	Depression average score	**0.5684**
	Control	Intervention
Baseline	8.9	7.7
Midterm	5.0	5.0
End line	5.1	5.2

Means for strengths and difficulties		
Spell	Parent strengths and difficulties average score	
	Control	Intervention
Baseline	4.8	4.9
Midterm	3.4	2.4
End line	3.3	2.5
Depression means across groups and spells		
Spell	Depression average score	
	Control	Intervention
Baseline	8.9	7.7
Midterm	5.0	5.0
End line	5.1	5.2

Table 4: Means for strengths and difficulties and depression across three spells

2. Depression

A total depression score for each participant was obtained by adding scores on the items. A high score meant high depression. Means for depression were computed across groups and spells. See Table 4 above.

For the control group, the means were 8.9, 5.0 and 5.1 for the baseline, midline and end line, respectively whereas for intervention group the means were 7.7, 5.0 and 5.2 for baseline, midline end line, respectively. An independent t-test to compare the mean scores of depression for control and Intervention group at different study periods was computed. The results showed that at the baseline the intervention group had a significant reduction in scores of depression when compared with families in the control arm of the study *(t = 1.532, p<0.2)*. Both the intervention arm and the control arm were not significantly different from each other in terms of depression at midline (t=0.032, p = 0.974) and end line scores (t =0.126, p = 0.9003).

Generalized Anxiety and Hope

3. Generalized Anxiety

The mean scores for generalized anxiety were computed and results appear in Table 5. For the control group, the means of generalized anxiety were 7.6, 5.1 and 4.6 for the baseline, midline and end line, respectively whereas for intervention group the means were 6.4, 4.6 and 4.6 for baseline, midline end line, respectively, showings that anxiety means decreased from baseline to end line and the tendency was slightly higher among the control compared to the intervention groups. An independent t-test to compare the mean score of generalized anxiety for control and Intervention group at different study periods was computed. It was found that in all the three spells, the intervention group had lower anxiety means compared to the control group. This tendency was significant at baseline (t = 1.791, *p<0.10*) *but not at* midline (t=0.752, p =0.453) and end line (t = 0.094, p = 0.925).

Levels of generalized anxiety across spells		
Spell	Generalized anxiety average score	
	Control	Intervention
Baseline	7.6	6.4
Midterm	5.1	4.6
End line	4.6	4.6
Variation in Hope across the spells		
Spell	Hope average score	
	Control	Intervention
Baseline	12.0	11.9
Midterm	11.6	12.6
End line	12.4	12.8

Table 5: Levels of generalized anxiety and Hope across spells

4. Hope

The mean scores on the Hope scale were computed across groups and spells. See Table 5 for the results. The mean scores on the Hope scale were computed across groups and spells. For the control group, the means were 12.0, 11.6 and 12.4 for the baseline, midline and end line, respectively whereas for intervention group the means were 11.9, 12.6 and 12.8 for baseline, midline end line, respectively showing a tendency for the intervention group compared to the control group to report higher scores of hope. An independent t-test to compare the mean score of hope for control and intervention group at different study periods was computed and results showed that for all the spells the control group and intervention group did not significantly differ on Hope ($p<0.05$) although at midline the intervention scored higher on Hope compared to the control group ($p= 0.0682$).

5. General Family Functioning

General family functioning mean scores were computed across the spells and groups after odd item ratings had been reversed. A high mean meant high family functioning (see Table 6).

Spell	General family functioning average	
	Control	Intervention
Baseline	24.5	37.5
Midterm	38.2	38.8
End line	38.5	39.1

Table 6: General family functioning across the spells and groups

For the control group, the means were 24.5, 38.2 and 38.5 for the baseline, midline and end line, respectively whereas for intervention group the means were 37.5, 38.8 and 39.1 for baseline, midline end line, respectively showing that across spells, the intervention group reported higher on family functioning than the control group and across the spells. An independent t-test results showed that at the baseline, the intervention group compared to the control group scored significantly higher on family functioning (lower family functioning) ($t =6.4012$, $p = 0.0001$). The groups did not significantly differ from each other at midline ($t= 0.4606$, $p =0.6457$) and end line ($t =0.5129$, $p = 0.6087$).

Predictors of Psychosocial Distress Outcomes

The predictors of outcomes of depression, generalized anxiety, hope and family functioning were determined using regression. The predictors entered in the regression model were demographic and coping factors. Four regression models were run representing the four outcomes. The predictors of outcomes were identified using panel regression as shown in Table 7. Table 7 shows results for significant predictor variables identified as age, education and coping methods.

Variable	Coefficient (95% CI)	P-value
Predictors of hope		
Youth coping factors		
Factor4(Problem avoiding)	-0.91(-1.52,-0.31)	0.003
Predictors of Depression		
Factor3(expressing with others)	1.63(0.21,3.04)	0.025
Predictors of family functioning		
Age Category		
25-34 years	-5.62(-11,-0.24)	0.041
35-44 years	-6.11(-18.94,6.72)	0.351
Youth coping factors		
Factor2 (thinking about problem solution)	1.58(0.03,3.13)	0.046
Factor3(expressing feeling with others	2.59(0.49,4.68)	0.016
Factor4(Problem avoiding)	-2.84(-4.58,-1.09)	0.001
Anxiety		
Education		
O-level	-0.51(-2.56,1.54)	0.626
A –level	-0.88(-4.56,2.79)	0.637
University/Tertiary	-4.79(-8.33,-1.25)	0.008

Coping factor		
Factor1 (hoping for the best)	2.06(0.47,3.66)	0.011
Factor3 (expressing feeling with others)	1.5(0.04,3.00)	0.049
Factor4 (problem avoiding)	1.24(0.01,2.48)	0.049

Table 7: Predictors of psychosocial distress outcomes

According to Table 7, age was a significant predictor for family functioning. As age increased family functioning reportedly decreased. As age shifted from 18-24 Years to 25-34 Years, family functioning decreased 5 times (-5.62(-11, -0.24) 0.041). Coping was a significant predictor such that problem solving increased FF (1.58(0.03,3.13) 0.046), expressing feelings with others improved FF (2.59(0.49,4.68) 0.016), and problem avoiding reduced FF (-2.84(-4.58, -1.09) 0.001) in the time of Covid-19. Expressing feeling with others was associated with depression (1.63(0.21, 3.04) 0.025). Hope was predicted by problem avoidance (-0.91(-1.52, -0.31) 0.003). Generalized anxiety was predicted by hoping for the best (2.06(0.47, 3.66) 0.011); expressing feeling with others 1.5(0.04,3.00) 0.049; and problem avoidance (1.24(0.01, 2.48)0.049) and education. University and tertiary education category was significantly associated with reduced generalized anxiety (-4.79(-8.33, -1.25) 0.008.

Testing Hypothesis Two

Hypothesis 2 stated that ***"The participants wouldreport positive views and observations on the family RCI to maximizing impact"***. We start with the reported learning that went on during the intervention.

Views and Observations on the Family RCI by Participants

What was learnt? Eleven items were used to assess the feedback on what was learnt. High score meant high positive feedback. Frequency distributions were computed for different items. The results showed that on all the 11 items that assessed learning, a higher percentage of the intervention group compared to the control group agreed to have learnt a lot about the fRCI. Participants liked participating in the group discussions, had relatively few negative feelings and learnt a lot about their own and others' feelings and coping strategies. Mean scores on what was learnt scale were computed for the intervention group across spells. Means showed that the participants learnt more at baseline (Mean = 6.2) than midline (Mean = 3.9) and end line (Mean = 4.1) probably showing early masterly of the issues being addressed.

Session Reports: Feedback about the sessions by participants was assessed using a form with 14 items and analyzed using percentages. Across the three spells, majority gave positive feedback about sessions (supported by 50% of participants on all items across spells). It is only the item regarding "giving stakeholders chance to discuss with youth how to deal with specific crises where there was no majority support (49.4%). Most of the participants completed the form (baseline 100%, midline 100% and end line 91%).

Feasibility of the Intervention: The intervention was successfully implemented. Out of 100 families only 13 were loss to follow up. Participants recommended 40 minutes to 1 hour (100%) as appropriate time duration for sessions. The best aspects of fRCI were: counseling (55%) coping support and resilience training (30%), and the rest of the responses had a frequency of less than 5%). Improvements suggested continuous counseling be provided in timely and regular manner (42%), help clients cope well and increase resilience (42%), provide services to families and kids (6%), give good advice and share in groups (3%), put in place a financial punch (3%) /and do the intervention during the holiday (3%).

Acceptability of Intervention: Regarding acceptability four aspects were considered: 1. whether one would recommend this training to another person: 100% of the providers responded in the affirmative. 2. How satisfied they were with the instructions received: about 75% of the providers/counselors reported satisfaction with the fRCI. 3. Whether the training helped them deal more effectively with work, all (100%) of the family members reported that the training had helped them to earn a better living and helped them make more money. 4. And to report overall, how they were generally satisfied with the training intervention: the level of satisfaction with each component of the intervention was rated high (85%).

Testing Hypothesis Three

Hypothesis three stated that ***"The facilitators/counsellors/ providers will report positive views and observations on the family RCI to maximizing impact".*** *This concerned the* evaluation of RCI by counselors. Counselor evaluation of RCI was done for varies aspects using a 16 item form. On all the items, 100% of the providers/researchers implementing the intervention reported that, post intervention, they know how to use the fRCI, who should receive the fRCI and FRCI was easy to use, understood the instructions, could conduct the fRCI in 40 minutes, that fRCI could help children impacted by crisis and from diverse background, that RCI works well with youth programs, and that children understood the purpose of fRCI. All the providers reported that parents understood the purpose of fRCI that youth are able to use fRCI approaches and apply it to other problems, found the fRCI protocol helpful, and could use the fRCI with other youth and that fRCI could be used with kids with other types of problems.

Discussion

The family Resilience and coping intervention facilitates sharing of thoughts, feelings and coping strategies related to stressful events

like Covid-19 and can offer alternative actions and help build resilience. Participants ventilate, explore experiences, correct false beliefs and thoughts and engage in supporting others. The results of our study indicate that the fRCI is effective in dealing with covid related psychosocial distress in families in less privileged areas of Kampala city. The fRCI is both feasible and acceptable to families and counsellors [7].

Coping

The factor analysis of coping data came up with six factors including bolstering hope, thinking about problem solution, expressing feelings with others, problem avoidance, exercising and making things better and cognitive avoidance that accounted for 81.3% The factorial approach to coping is not new. Allen et al (2016) found that children's and adolescents' self-report of coping strategies came up with four coping dimensions/factors and that coping lead to better mental health. First, Nathan, First &Houston (2018) found that the fRCI intervention enables group members to discuss their challenges, problem solve, and connect with peers and improve coping mechanisms. In line with the above it was found that resilience can be strengthened and taught through coping skills among nurses [13]. These studies were done outside Africa. In our study only 3 sessions were conducted. These are rather few. Significant changes in coping may require more sessions and training.

Strengths and Difficulties

Assessment of strengths and difficulties focuses on mental health concerns in young people, eg conduct, and emotional problems [7]. Parents and youths reported improvements in mental health across spells especially concerning strengths and difficulties meaning that they were able to manage their behaviors and emotions better. These results support those of Allen et al (2016). Allen et al (2016) found that children's and adolescents who participated in RCI indicated decreased difficulties with their behavior and emotions compared to those who did not participate in the RCI. However, parental reports of difficulties with behavior and emotions revealed a significant decrease in children but not in adolescents.

Hope

The participants developed more hope in the future after participating in fRCI. Those who face difficulties and other mental health problems are less likely to be hopeful. This finding is supported in the literature. Houston et al (2016) found that RCI participants (college students) reported significantly more hope from Week 1 to Week 3 compared with control participants. Allen et al (2016) found that children and adolescents reported more feelings of hope postintervention compared to those in the control group.

Family Functioning

WHO (2020) reports that children and young people may feel fear, and grief, over the impact of the virus on their families. They mayfeel more isolated, anxious, bored and uncertain. This particularly true for adults. This is true with the findings of the present study. Family functioning improved after participating in the intervention compared to those in the control group. Study findings support that of Tam, Poon, Mahendran, et al (2021) who are of the view that the RCI can reduce family distress during covid-19 pandemic.

Anxiety

Youth and parents who participated in the intervention reported less anxiety compared to those who did not participate in the study. This is line with WHO which guides that practical skills to help cope with stress done a few minutes each day can reduce covid-19 related psychological distress including anxiety [14]. First J, First N L and Houston (2018) found that the intervention enables group members to discuss their challenges, problem solve, and connect with peerswhich reduces anxiety among students.

Depression

Family members who participated in the fRCI reported reduced depression compared to those who did not participate. Houston et al (2016) found that RCI participants (college students) reported significantly less stress and depression from Week 1 to Week 3 compared with control participants. First J, First N LO and Houston (2018) found that students who participated in the RCI reported less depression compared to the control group.

Predictors of psychosocial distress outcomes

Research aiming at isolating predictors of Covid-19 related distress is hard to come by. This research has identified predictors to include age, education and coping strategy.

Increase in age was a significant associated with decreased family functioning. This is in line with Allen et al (2016) who found that children and adolescents reported more feelings of hope postintervention. Increasing level of education was a significantly associated with reduced family functioning. This is contrary to the literature because education is seen as a coping resource which should increase wellbeing [16]. Coping resource effectiveness was found to be a better predictor of satisfaction with life for middle aged and older adults [17].

Type of coping was another significant predictor of family functioning. Bolstering hopefor the best was associated with increased family functioning. Those with hope are likely to cope better than those without hope [17].

Expressing feelings with others (a form of social support) wasassociated with improved family functioning. This is line with previous research Social support affects health in three ways: by regulating thoughts, feelings and behavior to promote health; by fostering an individual's sense of meaning in life; and by facilitating health-promoting behaviors [18].

Problem avoiding was associated with reduced family functioning. Avoidant coping provides short-term relief, overusing it can cause more stress. Ignoring or denying problems, procrastinating, canceling plans, or using substances are all examples of avoidance-focused coping skills [19].

Problem solving strategy was significantly associated with general family functioning which is in line with previous research. Problem solving removes stressors completely and leads to effective coping [21].

Expressing feeling with others was associated with increased depression. This is centrally to expectation. Expressing feelings should lead to reduced depression. The problem could be due to failure to find constructive ways to express feelings isn't always easy, especially if you didn't have a healthy model in your family growing up [21]. But also, a negative event like Covid -19 could lead to anxiety and anxiety could lead to depression.

High problem avoiding predicted reduced hope.Avoiding problems was associated with reduced hope (which is in line with previous findings which take avoidance to be a poor coping strategy. Research shows that individuals low in**hope** prefer **avoidant coping** strategies while hopeful individuals use more adaptive coping [22].

Expressing feelings with others predicting increased anxiety. That expressing feelings brings about emotional security in the family [23]. Problem avoidance predicted high anxiety. Avoiding problems was found to be associated with increased anxiety. This is in line with Rapson Gomez, Suzanne McLaren (2006) who found that avoidance coping style was correlated positively with anxiety/depression Higher education was associated with reduced anxiety. This is in line with the view that education is a coping resource and helps in coping with stress.

Evaluation of the Intervention

The participants liked the intervention format, responded well to the discussions. They reported learning a lot and responded well in sessions. There was little loss to follow up; and participants improved in managing emotions and behaviors. Similar findings well found by Allen (2014).

The components of the intervention that were most effective was counseling and coping training. This confirms previous research for example that of Mealer et al (2014) who found that the two aspects of counseling and coping reinforce each other.

Limitations

Our study had limitations. These include small sample size, design not being an RCT, lack of treatment fidelity, intervention contamination, assessment reactivity. not involving better designs such as cluster randomization or a stepped-wedge design may be needed to control for assessment reactivity and treatment fidelity [24].

There was failure to consider background and situational factors, not holding sessions on a weekly basis, and not assessing the effect of being on treatment by some of the participants were other limitations.

Conclusions

There were changes in outcomes across spells (baseline, midline and endline). The fRCI also brought between groups differences. Compared to the control group, the families that participated in the intervention appreciated the role of coping, experienced increased behavioral and emotional control, reported reduced anxiety and depression, increased hope and improved family functioning. However, there a number of factors that influence these relationships including coping strategies, age, and education of the participants

Recommendations

The following recommendations are suggested:

The Ministry of Health and the Ministry of Disaster Preparedness should adopt the fRCI strategy as part of a policy on managing pandemics like Covid -19 and training key members of the community including health workers, teachers and community leaders should be done by the ministries. When designing and implementing the family interventions, coping strategies, age, and education of the participants should be considered.

There are several research recommendations: Large samples that are sufficiently powered, RCTs, doing more weekly sessions, cluster randomization, stepped-wedge design, focus on treatment fidelity, intervention contamination and assessment reactivity, incorporating other programs in the RCI, consideration of the context, increasing the number of sessions, considering background factors, and being on treatment, doing more predictive research and focusing on identifying predictors of family distress during Covid -19 is recommended [25].

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